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Product Information

MemDX™ mPro Human KCNQ2/KCNQ4 Cell Line

Cat. No.: **S01YF-1122-KX108**
This product is for research use only and is not intended for diagnostic use.

Product Information

Target Protein
KCNQ2/KCNQ4

Target Protein Species
Human

Target Classification
Ion Channel

Target Family
Voltage Gated Potassium Channel

Target Research Area
Auditory and Otology Research; CNS Research

Related Diseases
Developmental And Epileptic Encephalopathy; Seizures, Benign Familial Neonatal; Benign Familial Neonatal Epilepsy

Product Properties

Mycoplasma Testing
Negative

Biosafety Level
Level 1

Activity
Yes

Form
Frozen cells

Selective Antibiotic(s)
Regular antibiotics active against mycoplasmas, bacteria and fungi.

Handling Notes
Frozen cells should be thawed immediately upon receipt and grown according to handling procedure to ensure cell viability and proper assay performance.
Note: Do not freeze the cells upon receipt as it may result in irreversible damage to the cell line.

Disclaimer: We cannot guarantee cell viability if the cells are not thawed immediately upon receipt and grown according to handling procedure.

Incubation

37°C with 5% CO_2

Applications

Drug screening and biological assays

Application Notes

Cells were plated in a 384-well plate and incubated overnight at 37°C and 5% CO_2 to allow the cells to attach and grow. Cells were then stimulated with a control for high-throughput drugs screening andfunctional assays.

Use Restrictions

These cells are distributed for research use only.

Shipping

Dry ice

Storage

Liquid nitrogen

Target

Full Name

Potassium voltage-gated channel subfamily Q member 2

Introduction

The M channel is a slowly activating and deactivating potassium channel that plays a critical role in the regulation of neuronal excitability. The M channel is formed by the association of the protein encoded by this gene and a related protein encoded by the KCNQ3 gene, both integral membrane proteins. M channel currents are inhibited by M1 muscarinic acetylcholine receptors and activated by retigabine, a novel anti-convulsant drug. Defects in this gene are a cause of benign familial neonatal convulsions type 1 (BFNC), also known as epilepsy, benign neonatal type 1 (EBN1). At least five transcript variants encoding five different isoforms have been found for this gene.

Alternative Names

EBN; BFNC; DEE7; EBN1; ENB1; HNSPC; KV7.2; KCNA11; potassium voltage-gated channel subfamily KQT member 2; neuroblastoma-specific potassium channel subunit alpha KvLQT2; potassium channel, voltage gated KQT-like subfamily Q, member 2; voltage-gated potassium channel subunit Kv7.2; KCNQ2; Potassium voltage-gated channel subfamily Q member 2

Gene ID

3785

UniProt ID

O43526

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